OXFORD | HOYER

Oxford®/Hoyer®

Elevate

Professional Series

SERVICE MANUAL

Joerns Healthcare

294000.10040 Rev A

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INSPECTION CRITERIA

Joerns Healthcare recommends a thorough inspection and test of the Oxford/Hoyer Elevate and its lifting accessories, slings etc. is carried out every six months including a weight test to the full SWL.

The examination and test should be conducted according to the recommendations and procedures below. Joerns Healthcare recommends authorised service dealers should carry out maintenance, inspection and certified testing only.

On hoist is fitted with the optional weigh scales, the weigh scales require an annual calibration as described on page 6.

Note: These recommendations are in compliance with the requirements of 1998 No2307 Health and Safety: The Lifting Operations and Lifting Equipment Regulations 1998. (LOLER) *This is a UK regulation. Outside the UK please check your local requirements.*

SUPPORT ARM

Confirm the presence and security of the sling retainers on the sling hooks or Securi3 clips (US model only).
Check the sling hooks on the support arm for damage or wear.
Check for adequate padding on the support arm.
Check for secure attachment of the arm to the mast pivot.
Make sure there is only minimal side movement of the arm and that it is free to rotate in the mast pivot.
Check the arm is in alignment with the centreline of the hoist.
Check the sling retaining bosses and clips on the actuator mounting bracket for damage or excessive wear.
Check the security and for wear on the actuator unit, mounting pin and mounting bracket on the arm.
(Any excessive movement or play of the actuator, must be investigated).

MAST

Check for secure attachment of the handle bar to the mast.
Confirm the mast is securely fitted in the base assembly.
Check the operation of the mast-locking device.
Make sure the mast fully engages onto the base socket.
Check for wear on the actuator unit mounting, mounting pin and mounting bracket on the mast.
(Any excessive movement or play of the actuator, must be investigated).

POWER PACK

Check for secure attachment of the power pack mounting plate to the mast.
Check for secure attachment of the power pack to the mounting plate.
Check the function of the Emergency Stop button.
Check the hand control for correct functioning in both directions, i.e. lift and lower.
Check the fit of the hand control plug and socket.
Inspect both actuator plugs for correct fitting.
Check the operation of the emergency raise and lowering function.
Check that the LCD battery level indicator shows the battery level when the emergency stop is released and shows stop when the emergency stop button is pressed.

ELECTRIC LEG ADJUSTMENT

Operate the leg opening buttons on the hand control and check the legs open and close correctly.
Check that the legs lock when the hand control button is released.
Check the legs are parallel when they are in the closed position.

INSPECTION CRITERIA

KNEE PAD

Check for secure attachment of the kneepad assy to the mounting bracket on the mast.
Check the kneepad is easily adjustable using the height-adjusting lever.
Check the kneepad assembly can't slide up or down when the height adjusting lever is released.
Check the leg restraining straps for damage and wear i.e. fraying, loose stitching etc. Ensure the buckles lock and release correctly.
Check the condition of the kneepad for splits and or rips.

FOOT PLATE

Check for firm and secure fitment of the footplate to the footplate base.
Check the foot tray for cracks or damage.

LEG PIVOTS

Check the leg pivots are secure and the legs pivot freely. Any stiffness must be investigated.
Make sure there is no excessive play in the leg pivots.

CASTORS

Check all castors for firm attachment to the legs.
Check for free rotation of the castor and the wheels.
Remove any build up of threads, hair or fluff.
Lubricate if necessary with a light mineral based grease.
Check correct operation of the brakes.

LIFT ACTUATOR

The actuator should require no maintenance.
Check for correct operation.
Check for correct operation of mechanical emergency lowering device, this should be done by applying the full SWL to the support arms, raise the weight a short distance and carefully pull up the emergency lever, the weights should lower to the ground in a safe and controlled descent. This test should always be carried out with the full SWL.
Confirm anti-crush precautions are operational.
Listen for any unusual noise.
Check for wear on the mounting boss top and bottom. **(Any excessive movement or play of the actuator must be investigated)**.

BATTERIES

The batteries in the power pack should not require maintenance, other than regular charging as detailed in the charging instructions.

CHARGING UNIT

Confirm the charger unit is charging the battery pack.
Check mains plug is fitted with the properly rated fuse.
Check the safety of the input and output lead wiring.

LOAD CELL AND WEIGHT DISPLAY (Optional)

Turn on the display and confirm the weight display indicates a reading of 0 (kg/lb) with no load on either the foot tray or support arms.
If calibration is required see calibration procedure on Page 5.

CLEANING

Clean with ordinary soap and water and/or any hard surface disinfectant. Harsh chemical cleaners or abrasives should be avoided as these may damage the surface finish of the lift. Avoid wetting any of the electrical parts.

CALIBRATION

WEIGH SCALE CALIBRATION

The (optional) weigh scale can be calibrated as required, a certified calibration weight of either 10kg or 25lb is required. Please contact Joerns healthcare if a calibration weight is required.

Turn on the weigh scales and by pressing and holding the “LB/KG” button select the correct units for the calibration weight, select KG if you are to use a 10kg weight else select LB if you are to use a 25lb weight.

To start the calibration press and hold the “ON/ZERO” and “LB/KG” buttons simultaneously the display will change from “ZERO” to “CAL”, release both buttons and the display will show “C 0”

Ensure there is no weight applied to the foot tray or support arms, press the “ON/ZERO” button, the display will count down from 16 to 0, during this time do not touch the hoist.

The display will now be showing C 10 if you are using a 10 kg test weight or C25 if you are using a 25lb test weight.
Place the calibration weight on the foot tray, press the “ON/ZERO” button, the display will count down from 16 to 0, during this time do not touch the hoist.

The display will automatically return to the normal weighing mode, the calibration is now complete.

LOAD TESTING

LOAD TEST

The load test should be carried out in accordance with the manufacturers test procedures. It is strongly recommended that, an authorised service dealer carry out the test.

Oxford/Hoyer Electric hoists have been designed to the requirements of:

1 BS EN ISO 10535 2006 Hoists for the transfer of disabled persons

The hoists are designed to lift the Safe Working Load only. The load lifting capability is set electronically and must not be increased as this causes excessive loading when the actuator reaches the limits of travel. This will affect the actuator's useful life.

2 BS EN ISO 10535 2006 Load Raising Test

This test is a straightforward lift of a load the equivalent to the Safe Working Load, from the lowest position to highest position of the hoist. Check that the hoist is not capable of lifting much more than the SWL (a small additional lifting capability is allowable but no more than 5% of the SWL).

TEST LOADS - OXFORD/HOYER ARISE/ASCEND

200kgs/440lbs

CERTIFICATION

An authorised service dealer will issue a test certificate after satisfactory completion of the thorough inspection and test. This certificate will be valid for six months.

Thorough Examination Report

Lifting Operations and Lifting Equipment Regulations 1998 (LOLER UK ONLY)

LOLER requires certain information to be included on the report given to a customer after a thorough examination. The information can be found in Schedule 1 (page 56) in the LOLER L113 publication.

Joerns Healthcare has prepared a Thorough Examination Report that includes all the required information. A copy can be found on page 18. Please feel free to use this as the basis of your own report.

SERVICE & MAINTENANCE

TOOLS REQUIRED

- 21mm A/F Spanner *(for the rear castors)*
- 17mm A/F Spanner *(for the front castors)*
- 19mm or ¾ inch A/F Spanner *(for the mast and support arm fixing bolts)*
- 9/16 inch A/F Spanner + ¼ Hex Key *(for the mast/boom pivot bolt)*
- 17mm A/F + 14mm Spanner *(for the sling/actuator retaining boss bolt)*
- ½ inch A/F Spanner + 3/16 Hex Key *(for the mast end lift and leg actuator bolts)*
- 4mm Hex Key *(for the screws on the handle bar base plate and all other fixings)*
- 8mm Hex Key *(for the screws securing the loadcell to mast)*
- Calibrated Torque Wrench
- Medium Strength Thread lock (BLUE) Type

SUPPORT ARM

1 The support arm is a two-piece assembly that is secured to the mast pivot by an arm pivot casting. The arm pivot casting is secured to the end of the arm by two hexagon headed bolts.

2 Remove the grey plastic covers from the bottom of the support arm, the covers are a push on fit. Remove the covers by gently levering a thin blade or screwdriver between the boom and the covers.

3 Check that the two M12 hexagon headed bolts, are **fully tightened to 15 Nm**.

4 Remove the end caps from the black sling retaining bosses on the arm to reveal securing set pin.

5 Check that the set pin is **fully tightened to 5 Nm**.

6 Examine the actuator mounting point. Without taking the mounting point apart check for signs of wear on the fulcrum pin. Check for excessive vertical and horizontal movement in the mounting. This will give a good indication of wear but if there is any doubt the assembly should be stripped down as follows:

7 Remove the set pin from the actuator bracket.

8 Examine the pin for signs of wear. The diameter of the fulcrum pin is 9.5mm. Reduction in diameter due to **wear must not exceed 1mm**, before replacement.

9 Remove the outer sleeve bush from the support arm bracket and actuator top while holding the actuator, carefully lower the actuator to the ground. (Take care not to loose the sling bosses and the sling retainers and nylon spacers on either side of the actuator on the inside wall of the boom).

10 Examine the outer sleeve bush for wear **this should not exceed 1mm**.

11 Examine the actuator mounting on the support arm for wear on the bore of the bracket **this should not exceed 2mm**.

12 Examine the actuator top for wear **this should not exceed 1mm**.

13 Examine the split bushes for wear **this should not exceed 0.5mm**.

14 Reassemble the actuator to the boom bracket by replacing the sleeve, plastic washers, sling bosses and the sling retainers set pin and nut.

15 Tighten the nyloc nut to 5 Nm.

16 Replace the end caps for the sling bosses.

SERVICE & MAINTENANCE

NOTE: Joerns Healthcare recommends Nyloc nuts should always be replaced if undone.

ALWAYS torque fasteners to the correct setting.

SUPPORT ARM PIVOT

1 Check the pivot for lateral, vertical and horizontal play that would indicate excessive wear. **Signs of excessive wear must be investigated.**
Play at the pivot point must not exceed 1 mm before replacement.

2a If the hoist is not fitted with optional weigh scale, remove the two plastic covers from the pivot.

2b If the hoist is fitted with optional weigh scale, the display can be removed by removing the battery and battery housing from the display housing and withdrawing the two screws which can be seen when looking through the battery hole - See appendix A . **Take care not to over-stress the cable connecting the display to the loadcell**.

3 Check the Set pin is **tightened to 8 Nm**.

4 Replace the plastic covers, and display if applicable, to the Boom pivot.

REMOVAL OF THE SUPPORT ARM PIVOT

1 To remove the support arm pivot, it is advisable to first remove the two M12 bolts from the end of the arm, this will enable the pivot to be removed and replaced more easily.

2a If the hoist is not fitted with optional weigh scale, Remove the grey plastic covers from the top of the boom .The covers are a push on fit. Remove the covers by gently levering a thin blade or screwdriver between the boom and the covers

2b If the hoist is fitted with optional weigh scale, the display can be removed by removing the battery and battery housing from the display housing and withdrawing the two screws which can be seen when looking through the battery hole – See appendix A. **Take care not to over-stress the cable connecting the display to the loadcell**

3 Remove the bolts and pull the arm away from the pivot.

4 The arm pivot is held in place with a set pin.

5 Remove the pin.

6 Examine the pin for signs of wear. The diameter of the pin is 12.7mm. Reduction in diameter due to **wear must not exceed 1mm** before replacement.

7 Withdraw the outer sleeve bushing from the arm pivot (if you did not remove the two M12 bolts, hold the boom while doing this as it may fall forwards).

8 Inspect the sleeve for wear as per the fulcrum pin.

9 Remove the plastic bearing washers (2 off) from the pivot and examine for any wear or damage. Lateral movement at the pivot is most likely to be because of wear on the washers.

10 Remove and examine the arm pivot and the remaining mast pivot casting, the pivots internal bores and the holes in the mast in particular for wear or damage.

11 The bore and holes are 20mm in diameter; **wear should not exceed 1mm on diameter** before replacement.

RE-ASSEMBLING THE SUPPORT ARM PIVOT

1 After performing all the actions and checks listed under **"Removal of the support arm pivot"** (page 8) reassemble the support arm pivot as follows:

2 Lubricate the set pin and sleeve with any light mineral-based grease, or silicon spray, paying particular attention to the bearing washers, and the pivots internal bores.

3 Insert one end of the outer sleeve into the hole on one side of the mast pivot.

4 Refit the arm pivot and one bearing washer into the top of the mast pivot.

5 Align the holes in the mast pivot, bearing washer and support arm pivot.

6 Insert the sleeve into the holes and ensure it passes into the mast pivot hole on the opposite side.

7 Pull back the sleeve until it is inside the pivot.

8 Insert the remaining bearing washer between the pivot and the inside of the mast pivot on the opposite side.

9 Line up the hole of the washer with the bores of the pivot and push the sleeve through the washer and into the mast pivot.

10 Insert the set pin into the sleeve including the steel washers and fasten the Nyloc nut.

11 Tighten to 8 Nm.

12 Insert the arm pivot into the support and refit the 12mm bolts and M12 Nyloc nuts (See note below).

13 Tighten each bolt to 15 Nm.

14 Replace plastic covers and weigh scale display if applicable.

NOTE: Joerns Healthcare recommends nyloc nuts should always be replaced if undone.
NEVER fit a new pin or sleeve to a worn or damaged casting/component.
ALWAYS torque fasteners up to the correct setting.

MAST

1 Remove the grey plastic covers from the top of the mast. The covers are a push on fit. Remove the covers by gently levering a thin blade or screwdriver between the mast and the covers.

2 Check the two M12 hexagon headed bolts that hold the boom pivot casting, are **fully tightened to 15 Nm**.

3 Replace the grey plastic covers to the mast.

4 Check the socket headed counter sunk screws (4), which hold the push handle to the mast. With a 4 mm A/F Allen key confirm the screws are fully tightened to **5 Nm**.

5 Examine the actuator mounting point for damage or wear.

6 Without taking the mounting apart check for signs of wear on the set pin.

7 Check for excessive vertical and horizontal movement in the mounting. This will give a good indication of wear but if there is any doubt the assembly should be stripped down as follows:

8 Remove the set pin that secures the actuator to the mast bracket.

9 Examine the pin for signs of wear. The diameter of the set pin is 9.5mm.
Reduction in diameter due to **wear must not exceed 1 mm** before replacement.

10 Remove the outer sleeve bush from the mast bracket, and actuator-mounting boss while holding the actuator, carefully lower the actuator and boom to the ground.

11 Examine the outer sleeve bush for wear **this should not exceed 1mm**.

12 Examine the actuator-mounting bracket on the mast, for wear on the bore of the bracket **this should not exceed 1mm**.

13 Examine the actuator bottom mounting boss for wear **this should not exceed 1mm**.

14 On hoists fitted with optional, the loadcell is not a serviceable item but it can be inspected / removed by removing the four securing screws two located either side of the mast as shown in appendix C. **Care must be taken not to over-stress the loadcell wires when the loadcell is removed. If the loadcell is removed ensure that the cable route is clear and cable doesn't become trapped when reassembled.**

After performing all the actions and checks reassemble the actuator to the mast as follows:

1 Lubricate the Set pin and sleeve with any light mineral-based grease, or silicon spray paying particular attention to the, bearing washers, and the boom pivots internal bore.

2 Replace the pin and sleeve through the actuator and mast bracket.

3 Replace washer and nyloc nut **Tighten to 15 Nm**.

4 Confirm the presence and the proper location of the engagement label.

5 Check the mast is fully engaged as per the engagement label.

6 Check the engagement of the mast-locking knob.

7 Confirm the mast will lift from the mast socket when the locking knob is unscrewed.

8 Check the electric leg opening contact assembly, for secure fitment and damage or wear.

NOTE 1: It is most important set pin and sleeve assemblies are re-assembled carefully. Check to ensure complete security.

NOTE 2: Joerns Healthcare recommends Nyloc nuts should always be replaced if undone.
NEVER fit a new pin or sleeve to a worn or damaged casting/component.
ALWAYS torque fasteners up to the correct setting.

ACTUATOR REPLACEMENT

NOTE: The Elevate hoist will require recalibrating following removal and replacement of the load cell unit. Refer to the calibration section of this manual.

1 Remove the mast from the base assembly and rest on a suitable surface

2 Remove the set pin and bush which secures the upper actuator mount to the support arm. Rotate the support arm towards the back of the hoist until it rests in a secure position. Rest the Actuator on the Mast.

3 Remove the set pin and bush which secures the lower actuator mount to the mast bracket, and actuator-mounting boss while holding the actuator, carefully lower the actuator to the ground.

4 Remove the four loadcell mounting screws, as shown typically in Appendix C, and carefully rest the loadcell on the ground taking care not to stress any cables.

5 Pull out strain relief and pull actuator cord out so that it is free from the mast assembly.

6 Replace actuator and reassemble upper and lower actuator fixings.

7 Feed actuator cord through hole in bottom of casting and replace strain relief bushing.

8 Place the loadcell back in position and Fasten mast screws to appropriate torques (40Nm for the smaller two, 136 Nm for the larger two and loctite in place with loctite 242). Make sure to route all cords to the sides of the load cell, away from the mounting faces of the load cell. Be careful not to pinch any of the cords, as this may cause the electrical system to cease functioning. Note: The cord should exit the mast assembly in the small circular cut-outs at the top of the bottom section of the mast.

BATTERY PACK & CONTROL UNIT

1 Confirm the mounting bracket is firmly attached to the mast. Three M6 cap head screws secure the mounting bracket. **Confirm the screws are fully tightened to 5 Nm**.

2 Check the engagement of the battery pack with the mounting. The battery pack should snap into place and be retained by a latch at the top of the pack. Make sure the latch is functioning correctly and holds the battery pack firmly in place.

3 Check the actuator, and hand control plugs are inserted fully into the appropriate socket on the base of the control unit. The plugs, particularly the hand control plug, are a tight fit in the sockets and must be pushed fully home. The hand control plug is indexed and can only be fitted in one position. The other plug is not indexed and can be fitted with a straight push.

4 Inspect the hand control and coiled lead for any obvious signs of damage. Damage to the hand control and particularly to the lead can cause intermittent faults. The hand control should be replaced if damage is evident. The mounting hook on the rear top of the hand control can be replaced by unscrewing two screws and fitting a new hook.

5 Check the operation of the hand control. Press the up and down buttons and confirm the boom moves in the proper direction.

6 Press the leg open and close buttons and confirm the legs move in either direction.

7 Check the operation of the Emergency stop switch. Push in the red button, this will latch and remain depressed and cut off all power to the lift.

8 Confirm by looking at the LCD panel that should now state the word STOP and show the image of a plug by the side of it and, by using the hand control.

9 Return power to the lift by twisting the red button clockwise and releasing. The LCD panel should no longer be showing the word STOP or the image of a plug and battery power should now be displayed instead.

10 Check the operation of the Emergency raise and descent buttons. These are small flush buttons on the front of the control unit under the Emergency stop switch labelled EMERGENCY and an up and a down arrow. The button is operated by pushing with a ballpoint pen or similarly shaped object.

SERVICE & MAINTENANCE

CHARGER

1 Check the charger mains light is functional (Green light).

2 Check the engagement of the battery pack with the mounting. The battery pack should snap into place and retained by a latch at the top of the pack. Make sure the latch is functioning correctly and holds the battery pack firmly in place.

3 Check the charging light is functional when charging the battery (Amber light).

4 Check the condition of the mains lead for damage or loose wiring.

KNEE PAD

1 Examine the kneepad assembly is free from wear or damage.

2 Check for excessive vertical and horizontal movement in the assembly when the high adjustment lever is released and also that the kneepad height can easily be adjusted by pulling the lever. This will give a good indication of wear but if there is any doubt the assembly should be stripped down as follows:

3 Remove the four screws holding the kneepad to the support plate and remove knee pad. As shown in appendix B.

4 Remove the height adjustment mechanism cover by removing the four screws As shown in appendix B.

5 The height adjustment mechanism can now be withdrawn and inspected for wear.

6 The height adjustment mechanism and locking lever should be fully cleaned and re-greased with any light mineral-based grease, or silicon spray.

7 Refitting is the reversal of the above.

8 Apply loctite to the M6 screws and **tighten them to 5 Nm**.

NOTE: Before applying threadlock to any screw or bolt check it can be screwed into the component without hindrance from old remaining threadlock. This could affect the proper torque setting.

FOOT PLATE

1 Remove the footplate by lifting it up and away from the locating holes.

2 Check the locating lugs on the bottom of the footplate for wear or damage.

3 Check the footplate is not cracked or damaged.

4 Replace the footplate.

CROSS MEMBER - LEGS / LEG PIVOT PINS

1 Check the leg pivots are secure and **tightened to 5 Nm**, and the legs pivot freely. Any stiffness must be investigated.

2 Check that there is no excessive play in the leg pivots.

3 Support the underside of the cross member so the front castors are off the floor and check the up and down movement of the leg. Movement in excess of 5mm is not acceptable and the pivot should be stripped down for closer inspection.

4 Removal of the legs/leg pivots can be done, as follows.

5 Remove the mast and boom assembly and set aside. Turn the lift base upside down and unscrew the 24 off M6 CSK head screws that secure the base plate to the cross member.

6 Remove the base plate.

7 To enable the leg pivot pin to be inspected, it will be necessary to remove the set pin that holds the piston end of the actuator in place on the cross member. Once the pin is removed the leg and the actuator can be lifted free from the cross member.

8 Remove the leg and actuator taking care not to lose the bronze bearing washers at each end of the leg pivot pin.

NOTE: Support the actuator to prevent damage to the mounting point still attached to the leg. If any work is to be done on the leg, it is safer to remove the actuator.

9 The leg pivot pin can now be withdrawn and inspected.

10 Clean the pin of any debris or replace the pin if worn.

11 Inspect the leg pivot bush in the leg. Clean the bush in the leg of any debris or replace the leg if it is worn.

RE ASSEMBLY OF THE LEG PIVOT PINS

1 Lubricate the leg pivot pin with any light mineral-based grease, or silicon spray.

2 Place one of the bronze washers over the hole in the main base casting of the cross member.

3 Refit the pin into the leg with the deeper shoulder of the pin going into the main base casting of the cross member.

4 Place the leg over the pivot.

5 Place remaining bronze washer over the leg pivot pin so that it rests on the surface of the leg bush.

6 Replace the set pin **(after applying threadlock)** that secures the actuator piston to the centre of the cross member and **tighten to 5 Nm**.

7 Replace the plates.

8 Apply loctite to the M6 CSK screws and **tighten them to 5 Nm**.

9 Ensure the leg actuators open and close the legs correctly.

NOTE: Before applying threadlock to any screw or bolt check it can be screwed into the component without hindrance from old remaining threadlock. This could affect the proper torque setting.

CROSS MEMBER - LEG ACTUATORS

To remove the actuators you will need to remove the base plate and leg assemblies as per the procedure listed under **"Cross member - legs / leg pivot pins"** (parts 4 to 7, page 13).

1 The set pins can now be removed from the leg end on the actuators.

2 Disconnect the bullet connectors on the wiring looms to remove the actuators from the hoist.

3 After inspection or replacement, reconnect the bullet connectors.

4 Refit the set pin and nyloc nut for the actuator on the leg end first and **tighten to 5 Nm**.

5 Replace the set pin **(after applying threadlock)** that secures the actuator piston to the centre of the cross member and **tighten to 5 Nm**.

6 Replace the plates.

7 Apply loctite to the M6 CSK screws and **tighten them to 5 Nm**.

8 Ensure the leg actuators open and close the legs correctly.

NOTE 1: Joerns Healthcare recommends Nyloc nuts should always be replaced if undone.
NOTE 2: Before applying threadlock to any screw or bolt check it can be screwed into the component without hindrance from old remaining threadlock. This could affect the proper torque setting.

REAR CASTORS

1 Check the front and rear castors are firmly fixed to the legs. Remove any loose castors with a 21mm A/F Spanner, re-assemble with threadlock. **Tighten to 10 Nm**.

2 Make sure the castors swivel and the wheels rotate freely. Remove any build up of threads, hair or fibres that may clog the bearings and prevent free rotation. Lubricate if necessary with a light, mineral based grease or silicon spray.

3 Check the action of the brakes on the rear castor. A foot-operated pedal activates the brake. Check the brake pedal locks in place and that the castor does not move when the brakes are engaged.

NOTE: Before applying threadlock to any screw or bolt check it can be screwed into the component without hindrance from old remaining threadlock as this could affect the proper torque setting.

FRONT CASTORS

1 Check the front and rear castors are firmly fixed to the legs. Remove any loose castors with a 17mm A/F Spanner, re-assemble with Loctite or similar thread locking compound. **Tighten to 10 Nm**.

2 Make sure the castors swivel and the wheels rotate freely. Remove any build up of threads, hair or fibres that may clog the bearings and prevent free rotation. Lubricate if necessary with a light, mineral based grease or silicon spray.

NOTE: Before applying threadlock to any screw or bolt check it can be screwed into the component without hindrance from old remaining threadlock. As this could affect the proper torque setting.

FAULT FINDING

The following are guidelines in determining the root cause of a problem. Should the fault not be identified then please contact Customer Services/Technical Support for further assistance.

PROBLEM: Hoist not working.

Possible Fault	Remedy
Emergency stop switch activated	Can be identified by an LCD panel that will have the word STOP and a picture of a plug in the panel. Turn red button clockwise or anti-clockwise (try both) and release.
Battery is not charged sufficiently	Can be identified by an LCD panel that will have none of the four blocks illuminated (audible beep should have been heard prior to this).
Power supply disconnected (detachable battery packs)	Push battery into place until a CLICK can be heard.
Completely discharged batteries (discharged beyong recovery)	Replace batteries.

PROBLEM: Hoist won't go up or won't go down..

Possible Fault	Remedy
Hand control plug not fully engaged	Push plug firmly into socket (in an emergency use of the emergency raise and lower function on the control box will suffice).
Wiring in hand control plug detached	Replace hand control + as above.
Hand control switches not working	Replace hand control + as above.
Wires detached inside handset	Replace hand control + as above.
Hand control socket damaged	Replace control box
Relay on control board inoperative	Replace control box
Defective actuator	Replace actuator
Anti-crush micro switch activated (safety device)	Check for correct function of micro switch or remove any obstacle that may have come btween the boom as it was lowering.
Actuator jack plug disconnected	Checkout plug and re-connect.

FAULT FINDING

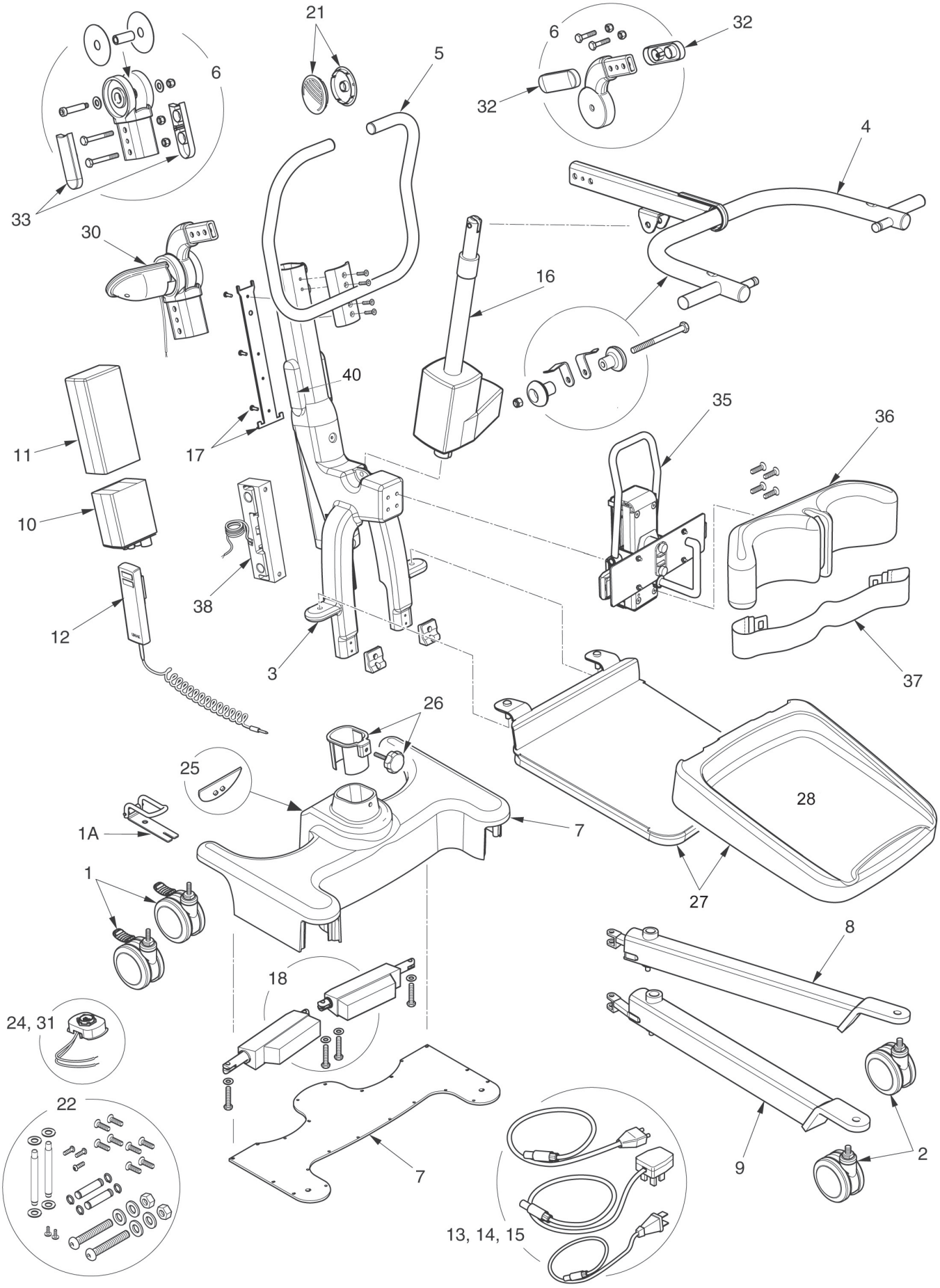
PROBLEM: Electric leg operation not working (one or both legs not moving).

Possible Fault	Remedy
Leg opening plug disconnected	Re-connect
Actuator disconnected from leg or centre mounting	Re-assemble and replace mounting bolts
Actuator defective	Replace actuator
Power coupling in mast base defective	Replace coupling
Broken attachment point on leg	Replace broken actuator or leg

PROBLEM: Weigh scale not functioning correctly.

Possible Fault	Remedy
Battery in display flat	Replace battery 9v PP5 type
Display faulty	Replace display unit
Load cell faulty	Replace load cell
Re-calibration required	Re-calibrate unit

EXPLODED VIEW



PARTS LIST

No.	Part No.	Description	Qty
1	0Y0066	100mm rear castor (braked)	2
1A	0Y0263	Straight-line steering device	1
2	0Y0073	100mm front castor (non braked) including tightening wrench (wrench not shown)	2
3	0Y0491	Mast extrusion including labels	1
4	0Y0307	Boom extrusion - Cow horn style (US ELEVATE MODEL)	1
4	0Y0388	Boom extrusion - Cow horn style (UK ELEVATE MODEL)	1
4	0Y0488	Boom extrusion - Cow horn style (US ELEVATE3 MODEL)	1
5	0Y0208	Push handle assembly (including bolts & fixings)	1
6	0Y0103	Cast boom to mast pivot joint (including connection bolts/fixings/spacers)	1
7	0Y0080	Base assembly (including labels, base casting and bottom plate, not internal parts)	1
8	0Y0209	Left leg extrusion (including fixings)	1
9	0Y0210	Right leg extrusion (including fixings)	1
10	0Y0211	Linak controller (4 Way)	1
11	0Y0067	Linak battery	1
12	0Y0075	Linak hand control (4 way)	1
13	0Y0071	Linak charge lead (UK)	1
14	0Y0114	Linak charge lead (US)	1
15	0Y0072	Linak charge lead (EU)	1
16	0Y0504	Linak actuator (incl. location pins, sleeves, washers, nuts, labels)	1
17	0Y0069	Linak battery and controller bracket/fixings	1
18	0Y0093	Linak leg actuator - 35mm stroke (including bolts and fixings)	2
19	0Y0492	Decal set (Oxford) not shown - no serial number labels	1
20	0Y0493	Decal set (Hoyer) not shown - no serial number labels	1
21	0Y0126	Pivot caps	2
22	0Y0494	Fixings kit (all bolts, screws and fixings)	1
23	0Y0070	Handset clip (not shown)	1
24	0Y0077	Mast to base electrical connection kit (including wires)	1
25	0Y0078	Foot push pad	1
26	0Y0112	Mast locking knob assembly (including plastic base insert)	1
27	0Y0495	Foot plate assembly (incl. cover)	1
28	0Y0496	Foot plate cover	1
29	0Y0128	Castor tightening wrench (not shown)	1
30	0Y0053	Linak charger and stand assembly (not shown)	1
31	0Y0129	Base to actuator electrical connection kit (including wires)	1
32	0Y0108	Boom to mast pivot plastic caps	2
33	0Y0076	Mast side caps	2
34	0Y0497	Scale Display and Pivot Casting Kit	1
35	0Y0498	Kneepad Adjustment Mechanism	1
36	0Y0499	Knee pad assembly (including fixing bolts)	1
37	0Y0500	Leg Strap	1
38	0Y0501	Load cell assembly	1
39	0Y0502	Dummy load cell assembly (not shown)	1
40	0Y0503	Mast side caps Elevate	2
41	0Y0128	Castor Tightening Wrench (not shown)	1

LOLER: Thorough Examination Report

Lifting Operations and Lifting Equipment Regulations 1998 Schedule 1

Client Name & Address _____

_____ Tel _____

Address of Examination _____

Model _____ Serial No. _____ Date of Manu. _____

Date of last Examination _____ Safe Working Load _____

Commissioning Examination ❑ Yes ❑ No Safe to Operate ❑ Yes ❑ No ❑ N/A

Periodic Examination ❑ Yes ❑ No
Interval of Examination ❑ 6 Months ❑ 12 Months ❑ Examination Scheme ❑ Exceptional
Safe to Operate ❑ Yes ❑ No ❑ N/A

Defective Parts (Immediate Attention):

Part Number	Description	Defect	Action Taken

Defects requiring rectification at a later date:

Part Number	Description	Defect	Action Taken	Latest Date

Next examination due date _____

Load test conducted according to ❑ BS 5827 ❑ BS EN ISO 10535 ❑ Other (state) _____

Thorough examination carried out (Date) _____

Name of Examiner _____ Job Title _____

On behalf of (Company/Organisation) _____

Address _____

_____

Signed _____ Signed on behalf _____

Date of Report _____ Name & address _____

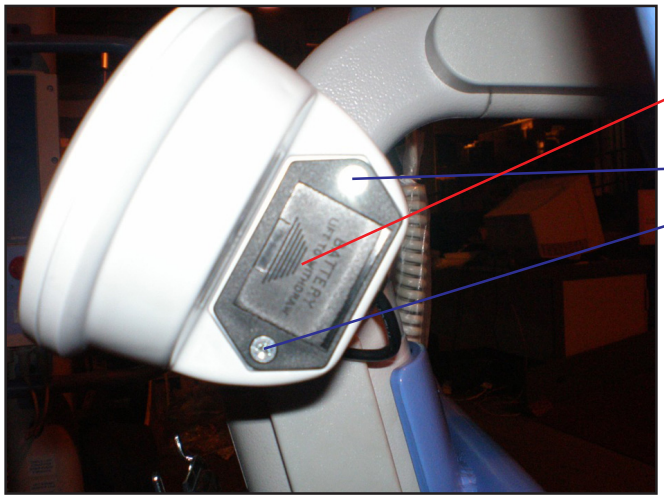
_____

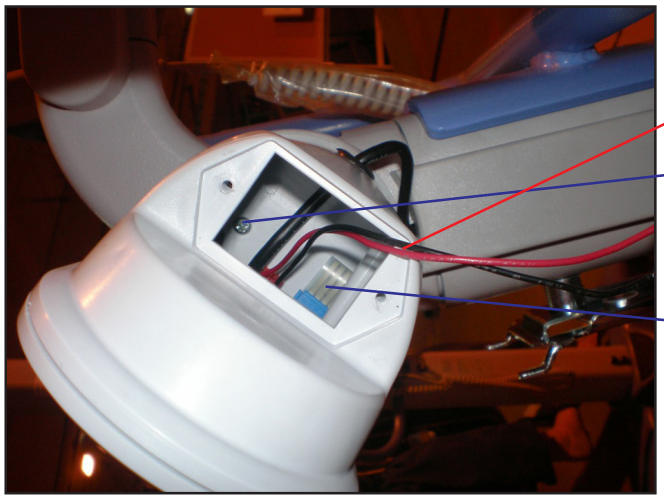
_____

_____

APPENDIX A

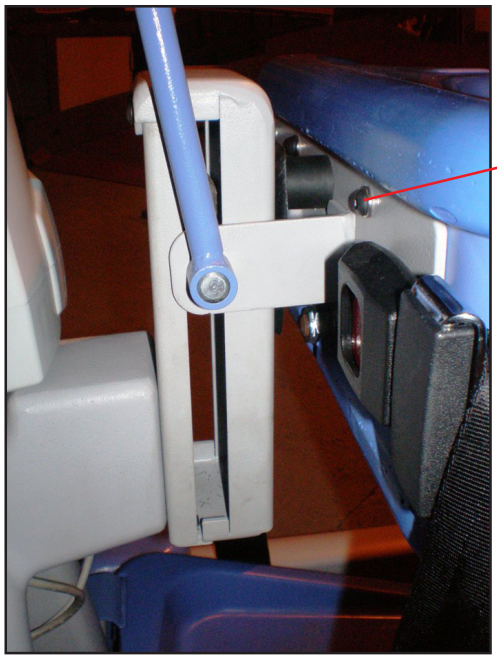
Removal of weigh scale display (optional):





APPENDIX B

Removal of kneepad:

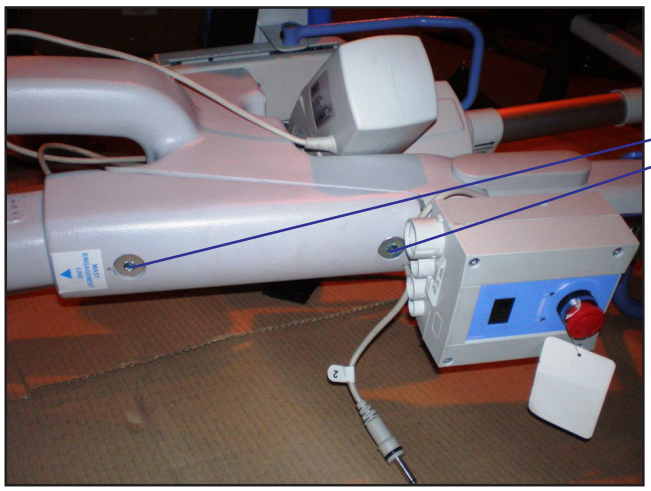


Remove screws securing kneepad to support plate

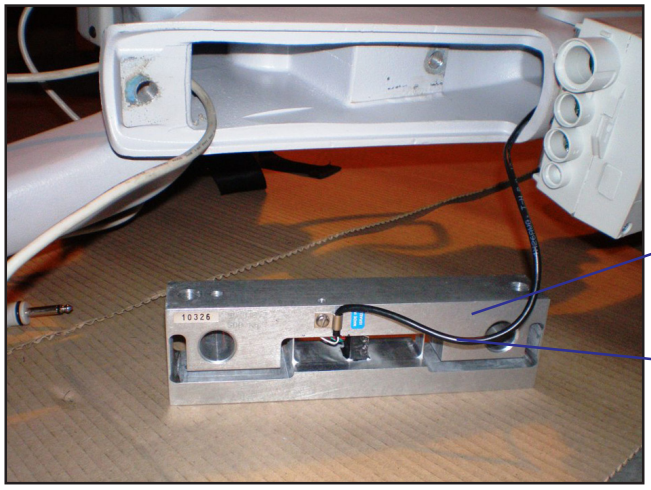
Remove four screws to access the kneepad height adjustment mechanism.

APPENDIX C

Removal of load cell:



Remove the four load cell screws (only two shown)



Load cell

Take care not to over-stress the load cell wire whilst load cell is removed.

Also ensure wires are not trapped when refitted.

After refitting, the Elevate will require re-calibrating

NOTES

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